

**Patent claims**

1. A method for computer-controlled monitoring of a manufacturing process of a plurality of physical objects,  
5       wherein several rules which relate to at least one status of at least one of the plurality of physical objects are stored;  
      wherein a sample is selected from the plurality of physical objects by using the rules, with  
10       physical objects of the sample being marked in such a way that they can be subjected to a measurement;  
      wherein the rules being formed on the basis of the criterion that the number of measurements is  
15       reduced and redundant measurements are avoided; and  
      it being possible for the several rules to be combined with one another and checked against one another.
- 20   2. The method as claimed in claim 1, wherein the physical object is a wafer.
3. The method as claimed in claim 2, wherein one of the several stored rules relates to an SPC sampling  
25       status of the plurality of physical objects.
4. The method as claimed in claim 2 or 3, wherein one of the several stored rules relates to an inquiry  
30       of a specific status of the plurality of physical objects.
5. The method as claimed in one of claims 2 to 4, wherein one of the several stored rules relates to  
35       an inquiry of an explicit status of the plurality of physical objects at a process step.
6. The method as claimed in one of claims 2 to 5, wherein one of the several stored rules relates to

an inquiry of a sampling status of the plurality of physical objects.

- 5        7. The method as claimed in one of claims 2 to 6,  
      wherein one of the several stored rules relates to  
      an inquiry of a special monitoring status of the  
      plurality of physical objects.
- 10      8. The method as claimed in one of claims 1 to 7,  
      wherein the various stored rules are combined with  
      one another.
- 15      9. The method as claimed in one of claims 1 to 8,  
      wherein the marked physical objects are subjected  
      to a measurement.
- 20      10. A device for computer-controlled monitoring of a  
      manufacturing process of a plurality of physical  
      objects with a processor which is set up in such a  
      way that the following method steps can be carried  
      out:  
      storing several rules, wherein the several rules  
      relating to at least one status of at least one of  
      the plurality of physical objects; and  
25      selecting a sample from the plurality of physical  
      objects by using the at least one rule, with the  
      sample being marked in such a way that it can be  
      subjected to a measurement, the rules being formed  
      on the basis of the criterion that the number of  
30      measurements is reduced and redundant measurements  
      are avoided, and it being possible for the several  
      rules to be combined with one another and it being  
      possible for the several rules to be combined with  
      one another and checked against one another.  
35
11. A computer-readable storage medium, in which a  
      program for monitoring of a manufacturing process  
      of a plurality of physical objects is stored, which

program executes the following method steps when it is run by a processor:

5 storing several rules, wherein the several rules relating to at least one status of at least one of the plurality of physical objects; and  
selecting a sample from the plurality of physical objects by using the at least one rule, with the sample being marked in such a way that it can be subjected to a measurement, the rules being formed  
10 on the basis of the criterion that the number of measurements is reduced and redundant measurements are avoided, and it being possible for the several rules to be combined with one another and it being possible for the several rules to be combined with  
15 one another and checked against one another.

12. A computer program element for monitoring of a manufacturing process of a plurality of physical objects which executes the following method steps  
20 when it is run by a processor:  
storing several rules, wherein the several rules relating to at least one status of at least one of the plurality of physical objects; and  
selecting a sample from the plurality of physical  
25 objects by using the at least one rule, with the sample being marked in such a way that it can be subjected to a measurement, the rules being formed on the basis of the criterion that the number of measurements is reduced and redundant measurements  
30 are avoided, and it being possible for the several rules to be combined with one another and it being possible for the several rules to be combined with one another and checked against one another.